BY THE COMPTROLLER GENERAL

ORIGINAL

Report To The Congress

OF THE UNITED STATES

COMPLETED

Mapping Problems May Undermine Plans For New Federal Coal Leasing

Faulty maps may undermine efforts by the Department of the Interior to resume its plans for new Federal coal leasing.

Recent actions to correct the maps, which are the major source of information on coal resources on Federal lands, and to provide needed data through other means, may be too late or fail.

Thus, unless a major change is made in the way the Interior gathers basic coal data, it may not be able to clear enough lands to meet the Nation's anticipated demands for more coal in the years ahead.

EMD-81-30

DECEMBER 12, 1980

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COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

MAPPING PROBLEMS MAY UNDERMINE PLANS FOR NEW FEDERAL COAL LEASING

D I G E S T

New energy supply initiatives will require more leasing and development of western Federal coal. Such coal is crucial in helping this Nation reduce its dependence on expensive and politically unstable foreign oil.

However, this report points out a serious problem that could undermine plans for new Federal leasing: the major source of information on coal resources on Federal lands is faulty.

Federal coal resource planning and management decisions rely on maps that are often inaccurate, unreliable, and inappropriate either to define broad planning boundaries or to support the kinds of economic, energy, and environmental trade-off decisions called for by the new Federal leasing program.

Recent actions by the U.S. Geological Survey to correct the mapping problems and provide needed data through an alternative approach may not fill the gap. Thus, unless a major change is made in the way basic coal data is obtained, the leasing program may not be able to make available sufficient quantities of economically minable Federal coal to meet the Nation's demands in the years ahead.

The maps--known as Coal Resource Occurrence/Coal Development Potential (CRO/CDP) maps--have since 1977 been developed under contracts managed by the Survey. Contract costs have totaled about $10 million. The maps were

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intended to cover all 78,000 square miles of western Federal lands classified for possible coal leasing and to be completed by 1982.

PROBLEMS WITH CRO/CDP MAPS

The CRO/CDP mapping program began as a relatively modest, short-term data compilation effort covering a limited portion of unleased coal lands. But--based on new mandates in the Federal Coal Leasing Amendments Act and the Federal Land Policy and Management Act, both in 1976, coupled with Interior's urgent need for coal data to support its new coal program--the program was enlisted to provide detailed geologic maps for all Federal lands classified for possible coal leasing.

Despite the absence of detailed data on coal reserves and development potential--the basis for CRO/CDP mapping coverage--and warnings about the quality and usefulness of the then-existing maps, Interior decided to adopt the maps as the major source of coal information for land use planning. This was a role the maps were never intended and not equipped to assume. The result has been maps that

--are so technically flawed and unreliable that they cannot be used to support land use planning decisions called for by the new Federal coal program,

--even if technically accurate, are incomplete and inappropriate for use in making the kinds of decisions envisioned by the new program, and

--were not available when certain land use planning decisions were made.

Much of the problem was brought on by (1) a "crash program" to develop maps--through contracts--covering extensive areas even though some of the areas were believed to contain little or no economically minable coal and

(2) the absence of sufficient geologic data to prepare useful maps for most of the areas. These and other problems are discussed in more detail beginning on page 7.

RECENT ACTION MAY NOT RESOLVE THE PROBLEM

Recognizing problems with CRO/CDP maps, the Geological Survey took action to (1) revise some CRO/CDP maps to improve their quality and add proprietary data, (2) limit future CRO/CDP mapping to areas scheduled for lease, and (3) expand its regional drilling and mapping program to cover Federal lands not scheduled for leasing. (See p. 18.) In addition, Interior--in responding to our draft report--announced that it terminated the contract mapping program, effective October 1, 1980.

While these steps are well-intentioned, it is doubtful that they will permit the Geological Survey to adequately respond to the needs of the coal leasing program because:

--Limited resources and lack of guidance from Survey headquarters make it doubtful needed maps will be ready in time for the Bureau of Land Management's use in land use planning.

--Survey's decision to limit future CRO/CDP mapping to areas scheduled for leasing may create a major gap in information on coal development potential for lands outside lease sale areas.

--Survey's regional drilling and mapping program lacks funding and staffing to assume the projected workload as well as administrative procedures to identify areas for further consideration.

ALTERNATIVE APPROACH TO MEETING INFORMATION NEEDS

Despite the important role reliable coal data has in the Interior's new coal leasing program

and the problems it has experienced in developing such data in a timely, efficient manner, the Department does not specifically request timely coal data from coal companies, State governments, or the general public. Rather, it continues to rely on faulty CRO/CDP and uncertain regional maps in making crucial land use planning and other energy/environmental/economic trade-off decisions. As a result, the best data may not be made available for these decisions, and the most economically minable coal may not be leased.

No law prevents the Secretary of the Interior from requesting expressions of interest in particular areas during land use planning, and thereby having additional information to more efficiently focus the Department's limited resources on areas of highest potential. While this should not deter the Secretary from considering other land uses, it may avoid the risk of initiating screening activities in areas where Interior has limited knowledge and data and where there is little or no interest in leasing. (See p. 27.)

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

The Secretary of the Interior should better link its land use planning and coal mapping/drilling programs and more efficiently use its in-house capability to concentrate on areas of highest interest and potential for coal leasing. This should include:

--Publishing in the Federal Register a notice of the Geological Survey's mapping and drilling plans at the same time the Bureau of Land Management gives public notice and requests comments on its schedule for land use planning--thus providing an appropriate time for coal companies, State governments, and the public to submit comments for use by the Survey in refining its exploration and mapping priorities.

--Establishing a sufficient mapping capability in-house--including funding for drilling--to (1) revise and improve the quality of needed CRO/CDP maps and (2) assure the linking of future mapping and drilling efforts with the Bureau's land use planning.

--Requesting nonconfidential coal and economic information from coal companies, State governments, and the public at the time the Bureau gives public notice on the preparation or revision of land use plans in particular areas. This notice should include (1) specific criteria to guide coal companies, State governments, and the public in submitting coal information and (2) procedures for how and when such information will be applied in land use planning.

AGENCY COMMENTS

In its response to a draft of this report (see appendix II), Interior expressed disagreement with GAO's interpretation of the Department's regulations regarding the role of the CRO/CDP maps, as well as with GAO's concern that problems with the maps may result in insufficient quantities of economically minable coal being made available from Federal lands. Interior also indicated disagreement with GAO's position on the need for solicitation of industry, State government, and public expressions of coal interest early in land use planning.

Despite its expressions of disagreement, Interior stated its intention to do practically all the things GAO proposed in the draft report--including termination of CRO/CDP contract mapping and various actions to better link its mapping activities and land use planning. These include:

--Improving coordination between Survey's mapping and drilling activities and the Bureau's land use planning schedule for the new coal leasing program.

--Focusing future coal mapping on Federal resources having the highest interest for leasing.

--Coordinating joint Survey/Bureau Federal Register notices for both general land use planning schedules and for specific planning units at the time of preparation or revision of land use plans.

--Using Federal Register notices in the future as a means for helping the Survey to achieve its objective of acquiring all publicly available coal resource data.

--Depending on the availability of funding and staffing, placing a high priority on the establishment of sufficient in-house mapping and drilling capability.

Interior's response is evaluated in detail in chapter 6 of the report. (See p. 37.)

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ABBREVIATIONS

BLM	Bureau of Land Management
CRO/CDP	Coal Resource Occurrence/Coal Development Potential
DOE	Department of Energy
EIS	Environmental Impact Statement
EMARS	Energy Minerals Activity Recommendation System
EMRIA	Energy Minerals Rehabilitation Inventory and Analysis
FLPMA	Federal Land Policy and Management Act
KRCRA	Known Recoverable Coal Resource Area
SID	Secretarial Issue Document
USGS	U.S. Geological Survey